

Following the Practice of Mushiboshi or “Drying bugs”: Why airing out your dirty laundry can lead to good preservation practices

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Women Airing Books and Clothes
Katsukawa Shunsho (1726-1792)
Japan, Edo period
F1909.349, Hanging scroll mounted on panel,
ink, color, and gold on silk, H. 201.5 W. 115.1 cm,
Photo courtesy of the Freer | Sackler
Smithsonian Museums of Art

It is often said that much of the cultural heritage that ends up in libraries & archives has been saved by accident: i.e. a document was saved from a fire pile or a manuscript was copied by various hands. In the case of the autumnal practice in Japan called *Mushiboshi*, or “drying bugs”: scrolls of paper, books, kimonos and other textiles are aired out in the courtyard to rid them of much of the insects and the humidity that are usually trapped in them during the summertime. This is a practice, performed at homes and temples alike, that is tied to the recognition of the changing of the seasons.

Preservation in libraries and archives has become a specialized field that involves perennial institutional support of trained personnel, facilities and supplies. The cost of this investment can be out of the reach of smaller institutions and personal households. The work illustrated in this poster intends to start identifying practices, sometimes with little or no cost, that have been part of the cultural or religious life around the world and how they can be applied and promoted to library, archives and the general public.

Effects of Traditional Practices on Preservation

Below is sample selection of a survey undertaken to identify institutional collections that have in part been preserved through the use of cultural or religious traditions. The surveyed institutions were chosen based on the length of their service and have been acknowledged as culturally significant by international entities such as UNESCO. The preserving tradition was then compared to their equivalent in modern preservation practices. The evaluation of their preservation effects are based on established criteria in the conservation literature.

Library/ Collection	Saint Catherine's Monastery Library, Egypt	Kyozo Library of the Daitokuji Temple, Japan	The Annals of the Choson Dynasty, Korea	Haeinsa Temple Janggyeong Panjeon, the Depositories for the Tripitaka Koreana Woodblocks, Korea	Biblioteca Palafoxiana, Puebla, Mexico	Joanina Library University of Coimbra, Portugal
	This library was built in the sixth century, which makes it the oldest continuously running library on Earth. UNESCO World Heritage Site, registered 2002	Founded in 1326 Buddhist Temple with a Classical Zen monastic layout. The Kyozo is a dedicated structure set up for the sole purpose of storage of the temple's collection.	The chronicles of the Choson dynasty were compiled from 1413 to 1865, during the reign of each king by professional historians who maintained records of state affairs as well as diplomatic affairs, the economy, religion, meteorological phenomena, the arts, and daily life. UNESCO Memory of the World, registered 1997	The Temple is home to the most complete collection of Buddhist texts, engraved on 80,000 woodblocks between 1237 and 1251. UNESCO Memory of the World, registered 2007.	The library was founded in 1646 with a donation from a private collector Juan de Palafox y Mendoza, bishop of Puebla and was administered by the clergy. It is considered the first public library in the Americas. UNESCO Memory of the World, registered 2005	This royal library founded in 1728, was long neglected but gained great support from the King during Reformation and Counter Reformation periods.
Preservation Tradition	At one point the library held a manuscript of the Ahtiname of Muhammad. Now held elsewhere, this document was the testament of the prophet Muhammad. It contains a promise of protection for the monastery.	Mushiboshi airings is the autumnal tradition of airing scrolls, books & textiles on a clear day to remove insects and humidity that may have accumulated during the hot summer months. This practice was undertaken in the temples, palaces and in private homes. On temples this practice became public gatherings akin to European salon exhibits of significant works of art.	The royal chroniclers followed the principles of geomancy, by making four copies of the Annals, These were stored in separate repositories that were established at the four cardinal points to maintain of the energy balance in the realm.	The building was constructed to house printing woodblocks made for the devotional practice of printing sutras on mass scale, and saving the woodblocks for replacement purposes. The site is known for using contemporary construction techniques that promoted the preservation of these woodblocks.	The items in the library were made accessible to the literate public under stern rules of service fashioned after the monastic rules in a scriptorium - warning patrons that they were under penalty of excommunication if they stole a book from the library.	Three rooms were divided by elaborate archways. For 200 years the staff has welcomed nightly visitors: bats. This approach to preservation allowed bats to prey on damaging library insects with the staff covering the furniture to protect it from guano.
Agents of Deterioration	Physical Forces					
	Thieves and Vandals	✖	✖	✖		
	Dissociation	✖	✖	✖	✖	
	Fire					
	Water					
	Pests		✖		✖	✖
	Pollutants					
	Light, Ultraviolet & Infrared					
	Incorrect Temperature	✖			✖	
	Incorrect Relative Humidity	✖	✖		✖	
Equivalent to Modern Preservation Practices	❖Building Envelope Strong fortress construction built for the protection of monks and religious items. ❖Sustainable preservation Local desert climate provides a balance of low relative humidity that balances out the effect of high temperature in the summer. ❖Disaster Planning Remote location and religious protection decrees have protected the site.	❖Integrated Pest Management Airing events allowed inspection of paper & textile items to get rid of insects and humidity to dry them off. ❖Intellectual Control Catalogs were made by monks and lay visitors of the objects exhibited in different airings events to memorialize the viewing of rare materials.	❖LOCKSS • All but the repository in northern post were burned down during a series of Japanese invasions between 1592–98 • 5 more copies were made from the surviving one.	❖Sustainable preservation • Passive ventilation is achieved in the design of the building that keeps air circulation moving in at one end and exiting out the other end of the building. •Building Envelope- Traditional architecture features, such as stone pads underneath wood pillars and shallow trough, protect from damp & rainwater. ❖Intellectual Property- Destroyed by fire in 1232, 2nd copy made edition made 1251. A 3 volume index was created for the new edition.	❖Security Use of religious beliefs gave lay users strong warnings against thefts of books.	❖Integrated Pest Management • Hard oak shelving repel insect infestation. • Bats roosting inside the walls prey on insects damaging to library books.

✖ Sustainable preservation is an approach using ecological minded alternatives to promote good environmental conditions for the care of heritage collections.

✖ Integrated Pest Management practices prevent infestation and minimize the use of toxic chemicals that may impact the health of people and collections.

✖ The Building Envelope is the system of a building structure that houses and protects its contents against the elements and detrimental external conditions and maintains an appropriate and stable internal environment.

✖ Passive ventilation is achieved in the design of the building that keeps air circulation moving in at one end and exiting out the other end of the building

✖ LOCKSS (Lots of Copies Keeps Stuff Safe)
Digital preservation principle of making multiple copies of documents and storing them in different geographical locations to ensure eventual

Research Literature Review

Preservation & Conservation as fields of knowledge have benefited from the passing down of the skills of making arts & crafts to develop ways to preserve cultural materials. However, there is little available literature in Library Science and in Conservation research relating to Preservation and its correlations to cultural or religious practices. Searching for household preservation resources yield results on historic preservation of museum houses and national trust properties. These resources naturally focus on the maintenance of the building envelope.

Many of the instances of preservation practices noted in this poster are an accumulation of facts found in disparate sources in the library literature. A possible course for further research is to apply work done in other ethno scientific fields, such Anthropology and Sociology, to find successful preservation techniques that are associated with a cultural context or domesticity. These approaches rely on the capture of oral histories. The 2003 UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage defines cultural heritage as "such as oral traditions, performing arts, social practices, rituals, festive events, knowledge and practices concerning nature and the universe or the knowledge and skills to produce traditional crafts.” Other alternative approaches such as Traditional Ecological Knowledge (TEK) or Prior Art research can yield further results of traditional technologies.

Precedence for this type of ethnographic research by conservators can be seen in efforts of to save Tibetan temple sutras and research of Tibetan papermaking. The work later expanded to include the preservation of the context as well as the material culture of a tradition, by revitalizing the tradition of hand papermaking in Tibet.

Future Research

Ultimately the goal of this research is to provide low cost preservation alternatives to libraries and the general public. The topic of this research stems from the author's work as part of the American Library Association's (ALA) Preservation Week Committee. This outreach initiative arose out of the need to educate the public of what the 2004 Heritage Health index report decreed as high level of risk that exists for collections in the public trust. A new 10 year updated survey has just been issued in 2014. To better understand how the public practices preservation at home, further research will also include interviewing and surveying library professionals and library users.

Once data has been compiled, the dissemination can be achieved through scholarly and popular trade publications as well as publicizing through library organizations. Further information and a sample survey can be found at the address below:

Survey of Household
Preservation Traditions
<http://bit.ly/1sCRFGG>

